WHAT IS CLAIMED IS:

1. An image processing system comprising:

an image reading apparatus including photoelectric conversion means for photoelectrically converting a target image into an image signal and outputting the image signal, first conversion means for performing gradation conversion and gamma correction on the image signal outputted from the photoelectric conversion means, and output means for outputting the image signal converted by the first conversion means; and

an apparatus including input means for inputting the image signal outputted from the output means, and second conversion means for performing gradation conversion and gamma correction on the image signal inputted by the input means.

2. An image processing system according to claim 1, wherein a gamma coefficient used by the first conversion means and a gamma coefficient used by the second conversion means are in an inverse relation.

3. An image processing system according to claim 1 or 2, wherein the gamma coefficient used by the first conversion means is equal to an inverse of a gamma coefficient used by a display that reproduces the image signal converted by the second conversion means as a visible image.

4. An image processing system according to any one of claims 1 to 3 further comprising a light source that illuminates the target image.

5. An image processing method comprising the steps of:

photoelectrically converting a target image into an image signal and outputting the image signal;

performing gradation conversion and gamma correction on the outputted image signal using first conversion means;

outputting the image signal converted by the first conversion means from an image reading apparatus;

inputting the outputted image signal; and

performing gradation conversion and gamma correction on the inputted image signal using second conversion means.

6. An image processing method according to claim 5, wherein a gamma coefficient used by the first conversion means and a gamma coefficient used by the second conversion means are in an inverse relation.

7. An image processing method according to claim 5 or 6, wherein the gamma coefficient used by the first conversion means is equal to an inverse of a gamma coefficient used by a display that reproduces the image

signal converted by the second conversion means as a visible image.

8. An image processing method according to any one of claims 5 to 7 further comprising a step of illuminating the target image.

9. An image processing apparatus that is used in combination with an apparatus including second conversion means for performing gradation conversion and gamma correction on an input image signal,

the image processing apparatus comprising:

photoelectric conversion means for photoelectrically converting a target image into an image signal and outputting the image signal;

first conversion means for performing gradation conversion and gamma correction on the image signal outputted from the photoelectric conversion means; and

output means for outputting the image signal converted by the first conversion means.

10. An image processing apparatus according to claim 9, wherein a gamma coefficient used by the first conversion means and a gamma coefficient used by the second conversion means are in an inverse relation.

11. An image processing apparatus according to

claim 9 or 10, wherein the gamma coefficient used by the first conversion means is equal to an inverse of a gamma coefficient used by a display that reproduces the image signal converted by the second conversion means as a visible image.

12. An image processing apparatus according to any one of claims 9 to 11 further comprising a light source that illuminates the target image.

13. An image processing apparatus that is used in combination with an image reading apparatus including photoelectric conversion means for photoelectrically converting a target image into an image signal and outputting the image signal, first conversion means for performing gradation conversion and gamma correction on the image signal outputted from the photoelectric conversion means, and output means for outputting the image signal converted by the first conversion means,

the image processing apparatus comprising:

input means for inputting the image signal outputted from the output means; and

second conversion means for performing gradation conversion and gamma correction on the image signal inputted by the input means.

14. An image processing apparatus according to

claim 13,

wherein a gamma coefficient used by the first conversion means and a gamma coefficient used by the second conversion means are in an inverse relation, and

wherein the gamma coefficient used by the first conversion means is equal to an inverse of a gamma coefficient used by a display that reproduces the image signal converted by the second conversion means as a visible image.

15. An image processing method for an apparatus that is used in combination with an apparatus including second conversion means for performing gradation conversion and gamma correction on an input image signal,

the image processing method comprising the steps of:

photoelectrically converting a target image into an image signal and outputting the image signal;

performing gradation conversion and gamma correction on the outputted image signal using first conversion means; and

outputting the image signal converted by the first conversion means.

16. An image processing method according to claim 15, wherein a gamma coefficient used by the first

conversion means and a gamma coefficient used by the second conversion means are in an inverse relation.

17. An image processing method according to claim 15 or 16, wherein the gamma coefficient used by the first conversion means is equal to an inverse of a gamma coefficient used by a display that reproduces the image signal converted by the second conversion means as a visible image.

18. An image processing method for an apparatus that is used in combination with an image reading apparatus including photoelectric conversion means for photoelectrically converting a target image into an image signal and outputting the image signal, first conversion means for performing gradation conversion and gamma correction on the image signal outputted from the photoelectric conversion means, and output means for outputting the image signal converted by the first conversion means,

the image processing method comprising the steps of:

inputting the image signal outputted from the output means; and

performing gradation conversion and gamma correction on the inputted image signal using second conversion means.

19. An image processing method according to claim 18, wherein a gamma coefficient used by the first conversion means and a gamma coefficient used by the second conversion means are in an inverse relation.

20. An image processing method according to claim 18 or 19, wherein the gamma coefficient used by the first conversion means is equal to an inverse of a gamma coefficient used by a display that reproduces the image signal converted by the second conversion means as a visible image.

21. A computer-readable storage medium storing a program that allows a computer to perform a method according to any one of claims 5 to 8 and 15 to 20.

22. An image processing system comprising an image reading apparatus and a computer that are connected to each other,

the image reading apparatus including:

signal input means for optically reading an original image and generating an image signal;

first gamma correction means for performing gradation conversion and gamma correction on the image signal; and

transmission means for transmitting the image signal corrected by the first gamma correction means to

the computer, and

the computer including:

input means for inputting the image signal from the image reading apparatus;

second gamma correction means for performing gradation conversion and gamma correction on the image signal inputted by the input means; and

third gamma correction means for performing gradation conversion and gamma correction on the image signal corrected by the second gamma correction means, the gamma correction by the third gamma correction means being performed to output the image signal.

23. An image processing system according to claim 22,

wherein a gamma value used by the first gamma correction means is equal to a gamma value used by the third gamma correction means, and

wherein a gamma value used by the second gamma correction means is an inverse of the gamma values used by the first gamma correction means and the third gamma correction means.

24. An image processing system according to claim 23, wherein the gamma value used by the third gamma correction means is a gamma value set by a user.

25. An image processing system according to claim 23,

wherein the computer includes a display, and

wherein the gamma value used by the third gamma correction means is a value that is based on a gamma characteristic of the display.

26. An image processing system according to claim 22,

wherein the first gamma correction means inputs a first gradation image signal and converts the first gradation image signal into a second gradation image signal, and

wherein the transmission means transmits the second gradation image signal to the computer.

27. An image processing system according to claim 26, wherein:

the input means inputs the second gradation image signal;

the second gamma correction means inputs the second gradation image signal from the input means and reverts the second gradation image signal to the first gradation image signal; and

the third gamma correction means inputs the first gradation image signal from the second gamma correction means and converts the inputted first gradation image

signal into the second gradation image signal.

28. An image processing system according to claim 27, wherein a number of gradations expressed by the first gradation image signal is higher than a number of gradations expressed by the second gradation image signal.

29. An image processing system according to claim 28, wherein the second gradation image signal is an 8-bit gradation image signal.

30. A method of controlling an image processing system including an image reading apparatus and a computer that are connected to each other,

the method comprising:

a signal input step for, in the image reading apparatus, optically reading an original image and generating an image signal;

a first gamma correction step for, in the image reading apparatus, performing gradation conversion and gamma correction on the image signal;

a transmission step for transmitting the image signal corrected in the first gamma correction step from the image reading apparatus to the computer;

an input step for, in the computer, inputting the image signal from the image reading apparatus;

a second gamma correction step for, in the computer, performing gradation conversion and gamma correction on the image signal inputted in the input step; and

a third gamma correction step for, in the computer, performing gamma correction on the image signal corrected in the second gamma correction step, the gamma correction in the third gamma correction step being performed to output the image signal.

31. A program that runs on a computer for realizing the computer operating as a computer in an image processing system according to any one of claims 22 to 29.

32. A program that runs on a computer for realizing the computer operating as an image recording apparatus in an image processing system according to any one of claims 22 to 29.

33. A computer-readable storage medium storing a program according to claim 31 or 32.